

REMARKS

The Office Action and the prior art relied upon have been carefully considered. As mentioned to the Examiner during a brief telephone conversation on April 10, 2003, applicant wonders whether the Examiner's file includes the substitute specification acknowledged in the Notification of Missing Parts dated August 3, 2000, which indicates that the substitute specification was filed on July 11, 2000. The notification also indicates that a preliminary amendment was filed on that date which rectifies the improper multiple dependent claims objected to by the Examiner. This amendment includes copies of the Notification of Missing Parts as well as the filed substitute specification.

The substitute specification was filed with ten claims as opposed to the twelve claims of the translated PCT application which the Examiner apparently relied upon. Accordingly, applicant will address the following comments to the three references cited by the Examiner, pointing out the distinctions between the references and newly added claims 11-21.

Due to the fact that this first Office Action was rendered on an incorrect version of the application, applicant requests that should a second Office Action be rendered, it be non-final, as agreed to by the Examiner during the above-referenced telephone conversation.

Pearlman (U.S. Patent No. 6,055,452)

The apparatus of Pearlman identifies tissue type by creating an impedance image. To do so, it is required that contact be made between a patient's skin and a probe. This is in sharp contrast to the present invention which positions the probe in proximate orthogonal relation to the tissue as claimed. Thus, the present invention is unsuited for creating an impedance image of tissue that is the primary objective of the reference. The method and corresponding apparatus set forth in the claims is directed to displaying scanned ultrasound images of tissue as opposed to an impedance image thereof. In order to accomplish this, the claimed invention sets forth a three dimensional positioning system with transmission of frequencies at a particular nominal frequency and a large pass band limitation. Beams of ultrasound transmission are focused by the invention so that there is vertical penetration distance of between 20 and 30 mm.

Due to the significant difference in the method and apparatus of the invention as compared with Pearlman, it can hardly be contended that the reference anticipates the invention.

Anticipation requires the disclosure, in a prior art reference, of each and every limitation as set forth in the claims. *Titanium Metals Corp. v. Banner*, 227 USPQ 773 (Fed. Cir. 1985); *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 1 USPQ2d 1081 (Fed. Cir. 1986); *Akzo N.V. v. U.S. International Trade Commissioner*, 1 USPQ2d 1241 (Fed. Cir. 1986). There must be no difference between the claimed invention and reference disclosure for an anticipation rejection under 35 U.S.C. § 102. *Scripps Clinic and Research Foundation v. Genetech, Inc.*, 18 USPQ2d 1001 (Fed. Cir. 1991); *Studiengesellschaft Kohle GmbH v. Dart Industries*, 220 USPQ 841 (Fed. Cir. 1984).

Torp (U.S. Patent No. 6,352,507)

This reference, relied upon by the Examiner as a primary reference in a rejection under 35 U.S.C. § 103(a) is directed to a system and method for calculating and displaying tissue deformation parameters. The reference allows a high frame rate in tissue velocity imaging or strain rate imaging. This is far from the method of the present invention and corresponding apparatus that displays scanned ultrasound images of tissue.

A further major distinction is that the transducer (probe) 142 is not disclosed as being mounted or movable in a three dimensional positioning system as claimed, nor are the ultrasound waves disclosed as having the frequency and penetration distance parameters as set forth in the newly added claims. In column 7, lines 51-62 of the reference, there is an explanation as to how scanning is electronically processed to create the special information. This is also shown in the combination of complex demodulation and tissue deformation calculation represented in Fig. 1. As indicated in the Abstract, lines 4-6, the tissue deformation parameter strain is determined by an accumulation of strain rate estimates for consecutive frames over an interval. It should be appreciated, the approach of the reference will not enable the display of a scanned ultrasound image of tissue but is rather directed to the completely different method and apparatus for providing real time calculation and display of tissue deformation.

Knell (U.S. Patent No. 6,312,381)

The cited portion of this reference, namely column 2, lines 35-55 deals with embedding control instructions with scanned line data. A scan converter 24 translates line type into one of four data types. Applicant cannot understand how this would be reasonably combined with the reference of Torp so as to create a combined apparatus that meets the present invention. It is applicant's position that none of the references taken singly or in any reasonable combination creates a *prima facie* case of obviousness.

In *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984), the Court mandated:

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined *only* if there is some suggestion or incentive to do so. (Emphasis in the original).

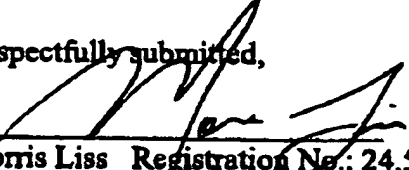
In view of the above, consideration and allowance are, therefore, respectfully solicited.

In the event the Examiner believes an interview might serve to advance the prosecution of this application in any way, the undersigned attorney is available at the telephone number noted below.

The Commissioner is hereby authorized to charge any fees, or credit any overpayment, associated with this communication, including any extension fees, to CBLH Deposit Account No. 22-0185.

Dated: August 20, 2003

Respectfully submitted,

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